

Amendments to the Specification

Please replace the paragraphs on page 24, line 5 to page 25, line 6 with the following amended paragraphs.

FIGS. 9a-9d ~~[[illustrates]]~~ illustrate the difference between a process that does not use control with the controlled process of the present invention. In an uncontrolled process the parameters are not controlled to ensure that the end-of-fill pressure reaches a predetermined set point pressure with every shot. FIG. 9a illustrates a graph showing the end-of-fill pressure for various shots in an uncontrolled process. Each peak and valley point on the graph represents the end-of-fill pressure for a single shot. As can be seen, in an uncontrolled process, the end-of-fill pressure varies considerably from shot to shot.

FIG. 9c illustrates the end-of-fill pressure of a controlled process of the present invention. Each peak and valley point on the graph represents the end-of-fill pressure for a shot. As can be seen, in the controlled process of the present invention, the end-of-fill pressure is relatively constant from shot to shot. The maintenance of ~~[[the]]~~ this uniformity of the end-of-fill pressure from shot to shot is a significant contributing factor to the ability of obtaining a reproducible resonance spectrum.

FIGs. ~~[[9c]]~~ 9b and 9d illustrate the pressure profiles of the injection pressure 500, beginning-of-fill pressure 510 and end-of-fill pressure 520 without control and with control respectively. As can be seen, the injection pressure 500 is higher than both the beginning-of-fill pressure 510 and the end-of-fill pressure 520. Once the cavity is nearly filled with molten material, the injection pressure 500 is reduced and the pressure at the beginning-of-fill begins to rise. Once the cavity is full, the injection pressure is kept constant and the end-of-fill pressure rises to the predetermined set point pressure, in

the case with control. The part is then allowed to cool and solidify, which causes a significant decrease in the end-of-fill pressure.